CLAIMS

1. Adjusting device for adjusting two parts (2, 3) relative to one another, other than for a device for adjusting the valve timing of a camshaft, and the adjusting device further comprises
an input shaft (4),
an eccentric drive element (4.2, 6) that can be driven by the input shaft,
a first part (2) with webs (2.3, 22.3), which are spaced apart in a peripheral direction and between which chambers (2.4) are formed,
a second part (3) with internal gearing (3.2, 13.2), and several teeth (7, 27), which are arranged in the chambers (2.4) spaced apart from each other in the peripheral direction, each having an inner contact surface (7.4) for contact with a drive element (6) and an outer contact surface (7.5) for engagement in the internal gearing (3.2, 13.2) and which are adjustable in a radial direction when the input shaft (4) rotates,
wherein when the input shaft (4) rotates, the parts (2, 3) can rotate relative to each other in a self-locking manner under engagement of the teeth (7, 27) in the webs (22.3) and in the internal gearing (3.2),
wherein
when the input shaft (4) rotates, the teeth (7, 27) in the chambers (2.4) can execute rotational movements about rotational axes parallel to a rotational axis (A) of the parts (2, 3).

2. Adjusting device according to Claim 1, wherein when the input shaft (4) rotates, each of the teeth (7,27) can be guided on a first circular-arc path radially inwardly and then on a second circular-arc path radially outwardly.

3. Adjusting device according to Claim 1 or 2, wherein a control surface (5.2) is provided for engagement in the teeth (7, 27), wherein torque can be exerted on the teeth (7) by the control surface (5.2) for executing the rotational movements.

4. Adjusting device according to Claim 3, wherein the teeth (7, 27) are supported radially inwardly by the drive element (6) and the control surface (5.2) is led

into engagement with an inner contact surface (7.4) of one of the teeth (7,27) only in radially inner positions of the tooth (7,27).

5. Adjusting device according to Claim 3 or 4, wherein the control surface is a control gearing region (5.2, 15.2) of a control gear wheel (5, 15), preferably an external gear wheel.

6. Adjusting device according to Claim 5, wherein the control gearing region is an external gearing region (5.2,15.2) of an external gear wheel (5, 15) rotationally fixed to the second part (13).

7. Adjusting device according to Claim 5, wherein the control gear wheel (5, 15) is supported so that it can rotate freely about the rotational axis (A) of the parts.

8. Adjusting device according to one of the Claims 3 to 5, wherein an axially projecting tab (7.9), which is held in a guide (2.7) of the first part (2), is formed on the tooth (7, 27).

9. Adjusting device according to Claim 8, wherein the guide is a recess (2.7) formed in the first part (2) between the webs (22.3).

10. Adjusting device according to Claim 8 or 9, wherein the guide (2.7) tapers towards the rotational axis.

11. Adjusting device according to Claim 10, wherein the tooth (7,27) can rotate in a radially inner position about a rotational axis defined by the tab (7.9).

12. Adjusting device according to one of Claims 1 to 5, wherein on side surfaces of the teeth and the webs acting as sliding surfaces, the teeth (27) and the webs (22) have shoulder regions (22.4, 27.1), which are led into contact with each other.

13. Adjusting device according to one of the preceding claims, wherein the webs (2.3, 22.3) taper towards the rotational axis.

14. Adjusting device according to one of Claims 1 to 3, wherein the control surface (15.2, 5.2) is formed on a control disk (5,15), which can rotate via the input shaft (4), preferably with frictional connection between the control surface (5.2, 15.2) and the radially inner contact surfaces (7.4) of the teeth in radially inner positions thereof.

15. Adjusting device according to Claim 14, wherein the control disk (5) is led into engagement with the inner contact surfaces (7.4) of the teeth (7, 27) only in the control surface (5.2)

16. Adjusting device according to Claim 14 or 15, wherein the control disk (6) is fixed rigidly on the drive shaft (4), preferably by a locking tab of the drive shaft (4), which is guided by a locking recess of the control disk (5).

17. Adjusting device according to one of the preceding claims, wherein the webs (2.3, 22.3) have in a radially center region (2.6) a taper with concave side surfaces (2.5).

18. Adjusting device according to one of the preceding claims, wherein the teeth (7,27) each have a center region (7.6) connecting the regions (7.2, 7.3) to at least partially concave side surfaces (7.7) between a radially inner region (7.2), which has the outer contact surface (7.5), for sliding and/or rolling contact on the webs (2.4).

19. Adjusting device according to one of the preceding claims, wherein the drive element is an eccentric disk (4.2) of the drive shaft (4).

20. Adjusting device according to Claim 19, wherein the eccentric ring (6) executes a wobble movement, preferably essentially without rotation, wherein the inner contact surfaces of the teeth (7, 27) roll on the eccentric ring (6).

21. Car seat according to one of the preceding claims, wherein the teeth (7, 17, 27) are biased in the radial direction.

22. Car seat according to Claim 21, wherein the teeth (7, 17, 27) are biased towards the rotational axis and have axially extending projections (7, 1, 17.1) or regions, around which is set an elastic ring (8, 18) biased towards the rotational axis.

23. Car seat according to Claim 21, wherein the teeth (7, 17, 27) are biased towards the rotational axis and have axially extending projections (7,1,17.1) or regions, around which is set an elastic ring (8, 18) biased towards the rotational axis.

24. Car seat according to Claim 23, wherein the biasing spring element (4.3) is mounted through at least partial plastic deformation between the input shaft (4), preferably a flattened region (4.1) of the input shaft (4), and the eccentric disk (4.2, 14.2).